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09/745,622

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Jin Lu

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09/14/2006

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EXAMINER

USTARIS, JOSEPH G

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 09/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/745,622

Applicant(s)

LU, JIN

Examiner

Joseph G. Ustaris

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2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This action is in response to the amendment dated 21 July 2006 in application 09/745,622. Claims 1-15 are pending. Claims 1, 3, 4, 6, 7, 9, 10, 12, and 14 are amended.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21 July 2006 has been entered.

### ***Claim Objections***

2. Claim 15 is objected to because of the following informalities: Claim 15 recites an incorrect status identifier. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vantalon et al. (US006628891B1) in view of Bertram et al. (US 20030103532A1) and Bacon et al. (US 20020101991A1).

Regarding claim 1, Vantalon et al. (Vantalon) discloses a system for sending out-of-band (OOB) service information from a service provider (See Fig. 4), the system comprising:

a conditional access module (CAM) which receives an in-band (IB) transport stream (TS) (See Fig. 4, CAM, in-band receiver, and transport stream co-processor; column 6 lines 15-20), the CAM module including,

a processor (See Fig. 4, 40) for processing OOB service information from a service provider, constructing OOB TS using the OOB service information and sending the OOB TS to a set-top box using a transport stream channel (See Fig. 4 and 5; column 6 lines 15-20 and 50-65); and

wherein the set-top box includes a processor for processing the OOB TS (See Fig. 4, microprocessor unit 34).

However, Vantalon does not disclose a system or method where (1) the CAM sends the OOB data as packets, inserting the OOB TS packets in existing gaps between consecutive IB TS packets, and (2) for the CAM to be embodied as a point of deployment (POD) module.

(1) Bertram et al. (Bertram) discloses a method for sending data to the subscriber's equipment using content streams. The content data is configured or "constructed" as packets to be sent to the subscriber's equipment within the content

stream (See paragraph 0020). Furthermore, Bertram further discloses a method of combining asset or "OOB" packets with content or "in-band (IB)" packets into one transport stream. Asset packets include control scripts much like how the OOB channel is used to send control data (See paragraph 0021 lines 1-2). The content packets include content material much like how the IB channel is used to send video/audio data. Bertram combines the content packets (Labeled as C in Fig. 2) and asset packets (Labeled as A in Fig. 2) in a way so that the asset packets are placed in between the content packets or "inserting the OOB TS packets in existing gaps between consecutive IB TS packets" (See Fig. 2A and 2B). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the CAM disclosed by Vantalón to send the OOB data as packets to the receiver or subscriber's equipment and to combine the OOB data with the IB data so that the OOB packets lie between consecutive IB packets, as taught by Bertram, in order to provide a more organized means of sending data to the receiver so that the data can be easily updated if need be and to reduce the number of connection needed to interface the CAM with the receiver by providing only one transport stream for both IB and OOB packets.

(2) Bacon et al. (Bacon) discloses an external conditional access module that is used within a host terminal or "set-top box" (See Fig. 2). Bacon discloses that the external conditional access module is also known as a POD (See paragraph 0002). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the CAM disclosed by Vantalón to be embodied as a POD, as taught by Bacon, so that the module would be in accordance with a well known

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and established interface thereby ensuring greater compatibility between users and providers.

Regarding claim 2, Vantalon in view of Bertram and Bacon discloses that the CAM or POD includes a transmit buffer where packets are stored prior to being sent (See Vantalon column 8 lines 1-15).

Regarding claim 3, the POD module sends the OOB TS packets between two consecutive transport stream packets of an original in-bound transport stream without delaying the two consecutive transport stream packets (See Bertram Fig. 2, OOB packets "A" and IB packets "C"). Furthermore, the transport stream packets are not delayed in Bertram because the original TS that the distribution network receives already has the NULL packets, therefore the distribution network and the subscriber's equipment will not experience any delays.

Claims 4, 5, and 6 contains the limitations of claims 1 and 3 and is analyzed as previously discussed with respect to those claims.

Claim 7 contains the limitations of claim 1 (wherein the CAM is also known as a "data module") and is analyzed as previously discussed with respect to that claim.

Claim 8 contains the limitations of claims 2 and 7 and is analyzed as previously discussed with respect to those claims.

Claim 9 contains the limitations of claims 3 and 7 and is analyzed as previously discussed with respect to those claims.

Claim 10 contains the limitations of claims 1 and 7 (wherein Bacon discloses a POD) and is analyzed as previously discussed with respect to those claims.

Furthermore, it is noted that smart cards, wireless data interface appliances, personal computers, or Internet appliances are well known in the art.

Claim 11 contains the limitations of claims 1, 4, 6, and 7 and is analyzed as previously discussed with respect to those claims.

Claims 12, 13, and 14 (wherein the receiver is also known as a "host device") contains the limitations of claims 1 and 3 and is analyzed as previously discussed with respect to those claims.

Claim 15 contains the limitations of claims 2 and 4 and is analyzed as previously discussed with respect to those claims.

### ***Response to Arguments***

4. Applicant's arguments filed 21 July 2006 have been fully considered but they are not persuasive.

Applicant argues with respect to claims 1, 4, 7, and 12 that Bertram does not disclose inserting OOB TS packets in ***existing*** gaps between consecutive IB TS packets. However, reading the claims in the broadest sense, Vantalon in view of Bertram and Bacon does meet the limitations of the claims. Bertram discloses that the NULL packets are inserted into the content at a content development facility and then stored in interactive information distribution system head end (See Bertram Fig.1, packetizer 135). Then the original TS is distributed over the distribution network. Therefore the original TS that the distribution network and subscriber's equipment

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receive will always have NULL packets or "**existing gaps**", where the system will then replace the NULL packets with OOB packets as discussed above.

Applicant further argues with respect to claims 3, 9, and 14 that Bertram does not disclose inserting OOB TS packets without **delaying** the IB TS packets. However, reading the claims in the broadest sense, Vantalon in view of Bertram and Bacon does meet the limitations of the claims. As discussed above, Bertram discloses that the NULL packets are inserted into the content at a content development facility and then stored in interactive information distribution system head end (See Bertram Fig.1, packetizer 135). Then the original TS is distributed over the distribution network. Therefore, the NULL packets do not introduce any delays to the IB packets because the content is developed with the NULL packets. The system will then replace the NULL packets with OOB packets as discussed above.

Applicant is reminded that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### **Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone



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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JGU

September 11, 2006



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